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## Patent Abstracts of Japan

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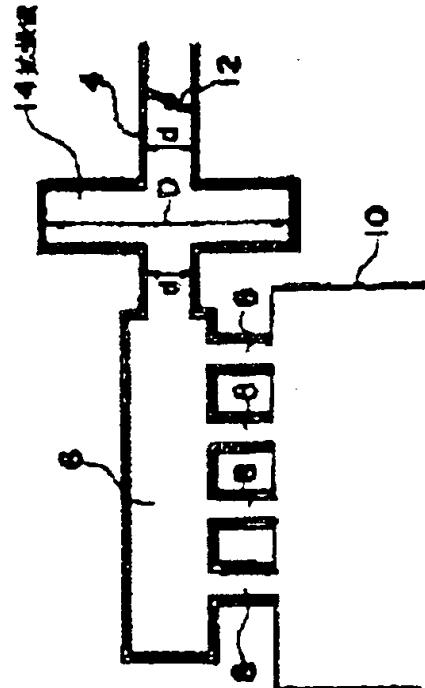
APPLICATION DATE : 05-12-90  
APPLICATION NUMBER : 02404640

APPLICANT : TOYOTA MOTOR CORP;

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INT.CL. : F02M 35/12

TITLE : INTAKE DEVICE FOR INTERNAL  
COMBUSTION ENGINE



ABSTRACT : PURPOSE: To effectively eliminate an impure feeling of an intake air noise by providing an expansion chamber, whose sectional area is spread, in an intake pipe between a throttle valve and a surge tank.

CONSTITUTION: In an intake system of an internal combustion engine, an air cleaner 2, intake pipe 4, surge tank 6 and intake manifolds 8 are successively arranged by this order in a flow direction of intake air, and the intake manifolds 8 are connected to an intake air port of the internal combustion engine 10 to provide a throttle valve 12 in the intake pipe 4. Here, an expansion chamber 14, whose sectional area is spread larger than the sectional area of the intake pipe, is provided in the intake pipe 4 between the throttle valve 12 and the surge tank 6. A diameter D of this expansion chamber is larger than a diameter (d) of the intake pipe, and the diameter D is preferably set to 4 times or more the diameter (d). In this way, impurity of an intake air noise is eliminated to improve a quality of in-car noise.

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